

A NEW SPECIES OF *SIGARA* FROM WESTERN OREGON
AND WASHINGTON (HEMIPTERA: CORIXIDAE)

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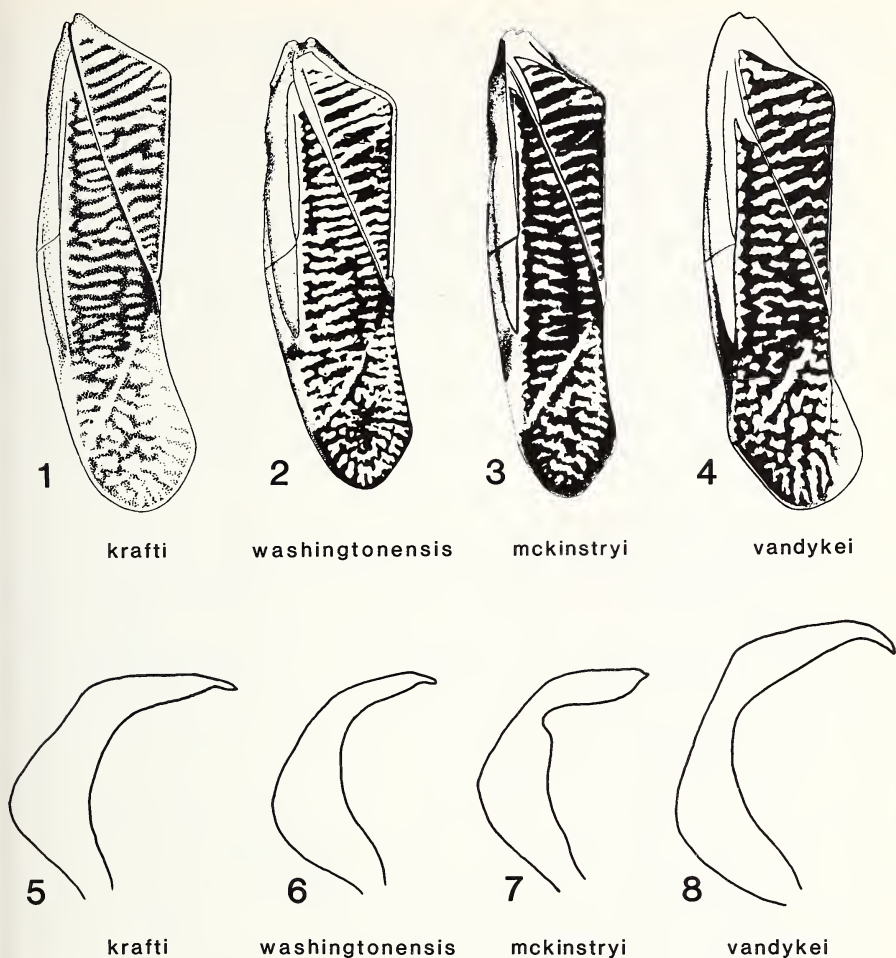
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Abstract.—A new corixid, *Sigara krafti*, is described from specimens collected in western Oregon and Washington. This species seems to prefer shallow, slow-moving water in streams and small rivers, and is most abundant over silty or muddy substrates. Illustrations of the male abdominal terga, right pala and right paramere of the male, left hemelytron of the female, and the mesepimeron are provided for *Sigara krafti* and three related species (*S. mckinstrii* Hungerford, *S. vandykei* Hungerford, *S. washingtonensis* Hungerford) found in Oregon and Washington.

Hungerford (1948) reported the following five species of the genus *Sigara* from Oregon and Washington: *S. alternata* (Say), *S. omani* (Hungerford), *S. ornata* (Abbot), *S. vandykei* Hungerford, *S. washingtonensis* Hungerford. All of these species are common in the Pacific Northwest except for *S. ornata*, which appears to have been erroneously recorded from this region. Hungerford reported *S. ornata* from an unspecified locality in Oregon, basing his identification on three specimens from the Uhler collection (USNM). I have examined a male and two female specimens from the Uhler collection that I believe are the ones Hungerford said were from Oregon. The writing on the labels is barely discernible, but it appears to read "Oro, 4-21-00." Hungerford apparently thought the label read "Ore" as in Oregon. However, it is more probable that "Oro" pertains to a specific locality or its abbreviation (e.g., Orono, Maine). In any case, all other records of *S. ornata* are from the northeastern United States and Canada, and it is doubtful this species occurs outside of that region.

Besides the species reported by Hungerford (1948), four other *Sigara* species occur in Oregon and/or Washington. These are *S. decoratella* (Hungerford), *S. grossolineata* Hungerford, *S. mckinstrii* Hungerford, and a new species, *S. krafti*, described below. *Sigara krafti* is distinguished from other *Sigara* species of the Pacific Northwest by the following combination of characters: body length 5.3–6.1 mm; ostiole located about midway between lateral bend and apex of mesepimeron; mesepimeral process broadest just anterad of ostiole, then slightly narrower to lateral bend (Fig. 13); anterior one-third to one-half of metaepisternum fuscous; posteromedial projection of male seventh abdominal tergum triangular (Fig. 9); right paramere of male thickened preapically (Fig. 5); and male pala with 29–34 pegs (Fig. 17).

The following abbreviations are used for specimen depositories cited in the locality data: American Museum of Natural History (AMNH); California Academy of Sciences (CAS); John T. Polhemus, personal collection (JTP); Oregon State University (OSU); National Museum of Natural History, Smithsonian Institution (USNM).

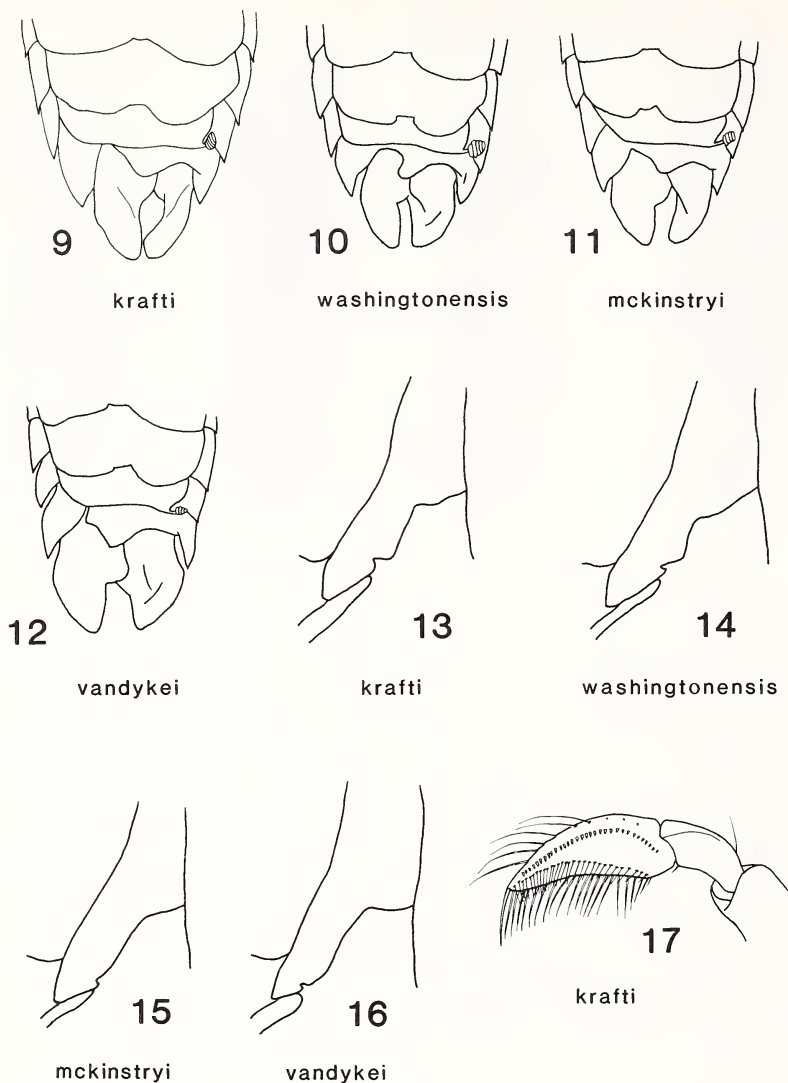


Figs. 1-8. 1-4. Hemelytron of female. 5-8. Right paramere of male.

***Sigara krafti*, new species**

(Figs. 1, 5, 9, 13, 17, 18)

Description. **SIZE:** Length: males, 5.3-5.8 mm; females, 5.4-6.1 mm. Width of head across eyes: males, 1.6-1.8 mm; females, 1.7-1.9 mm. Synthilipsis: males, 0.5-0.6 mm; females, 0.6-0.7 mm. **COLOR:** Pale yellow to yellowish brown ground color with brown to fuscous markings; pronotal disk and hemelytra grayish yellow with fuscous bands, sometimes lightly tinged with red. Pronotum with eight or nine transverse bands, dark bands equal in width or slightly narrower than pale intervening regions; middle one or two bands often broken, sometimes extending only across central portion of disk. Clavus with regular transverse bands, sometimes forked at



Figs. 9-17. 9-12. Abdominal terga of male. 13-16. Mesepimeron. 17. Male pala.

outer margin; bands tending to coalesce along commissure of hemelytra. Corial pattern distinctly transverse, bands coalescing to form longitudinal stripe along embolium and short longitudinal band across from apex of clavus. Membranal pattern irregular, sometimes fading along inner margin; membrane separated from corium by pale line. Embolium smoky, often fading to yellowish brown beyond nodal furrow. Head pale yellow, sometimes brownish yellow between eyes. Sternum and venter mostly darkened; sternum sometimes lighter in females. Mesepimeron pale, mes-

epimeral process moderately to heavily infuscated; metaepisternum pale, anterior one-third to one-half fuscous. Legs pale, coxae lightly to moderately infuscated. **STRUCTURAL CHARACTERISTICS:** Head half as long as pronotal disk; synthipsis about equal to width of eye; postocular space narrow; vertex slightly produced; facial hairs sparse; fovea of male broad and shallow. Pronotum, clavus, and corium strongly rastrate. Pronotum $1.5 \times - 1.7 \times$ as wide as long; lateral angles acute; posterior margin angulate; median carina small but distinct. Mesepimeron broadest just anterad of ostiole, slightly narrower and parallel-sided between ostiole and lateral bend; ostiole about two-fifths the distance from the tip to the lateral bend. Metaxyphus distinctly broader than long. Pala of male with 29–34 pegs arranged in single, curved row (Fig. 17). Male abdomen dorsally as in Fig. 9; abdominal strigil small, sub-spherical, composed of four or five combs; posteromedial projection of seventh abdominal tergum triangular. Right paramere of genital capsule as in Fig. 5.

Etymology. This species is named for Dr. Gerald F. Kraft (Biology Department, Western Washington University, Bellingham, Washington); while under his supervision I developed a strong interest in the family Corixidae, as well as other aquatic and semiaquatic Hemiptera.

Comparative notes. *Sigara krafti* is very similar to three other species of *Sigara* found in Oregon and Washington. In Hungerford (1948) and Lauck (1979), *S. krafti* keys to a couplet containing two of these species, *S. mckinstryi* and *S. washingtonensis*. *Sigara krafti* differs from these species by the more extensively darkened embolium, fuscous anterior region of the metaepisternum, weakly produced vertex, and by the shape of the right paramere of the male (compare Figs. 5–7). *Sigara krafti* is further differentiated from *S. washingtonensis* by the more regular transverse banding of the corium (compare Figs. 1 and 2), smaller abdominal strigil, and by the shape of the posteromedial projection of the seventh abdominal tergum of the male (compare Figs. 9 and 10). The pronotal disk of *S. krafti* is $1.5 \times - 1.7 \times$ as broad as long, whereas in *S. washingtonensis* the disk is nearly twice ($1.8 \times - 1.9 \times$) as broad as long. These two species also differ in the width of the postocular space. When measured at the inner posterior angle of the eye, the postocular space of *S. krafti* is distinctly narrower than the width of the middle tarsus. In *S. washingtonensis*, the postocular space is equal to or greater than the tarsal width. Finally, males of *S. krafti* usually have more palar pegs (29–34) than males of *S. washingtonensis* (26–30), but some overlap occurs in the range of peg numbers of these two species.

The hemelytral patterns of *S. krafti* and *S. mckinstryi* are similar, but the dark bands are usually narrower in *S. krafti* (compare Figs. 1 and 3). *Sigara krafti* also differs from *S. mckinstryi* by the shape of the mesepimeral process. In the latter species, the process is parallel-sided or weakly divergent from the ostiole to the lateral bend (Fig. 15), whereas in *S. krafti* the process is broadest just anterad of the ostiole, then slightly narrower to the lateral bend (Fig. 13).

Sigara krafti is superficially similar to a third *Sigara* species in Oregon and Washington, *S. vandykei*. The latter species is easily distinguished from *S. krafti* by the subapical position of the ostiole on the mesepimeral process (compare Figs. 13 and 16), the explanate anterolateral margin of the clavus that projects laterally over the clavoprunita, the protuberance on the posterolateral margin of the female hemelytron (compare Figs. 1 and 4), and by the right paramere of the male (compare Figs. 5 and 8).

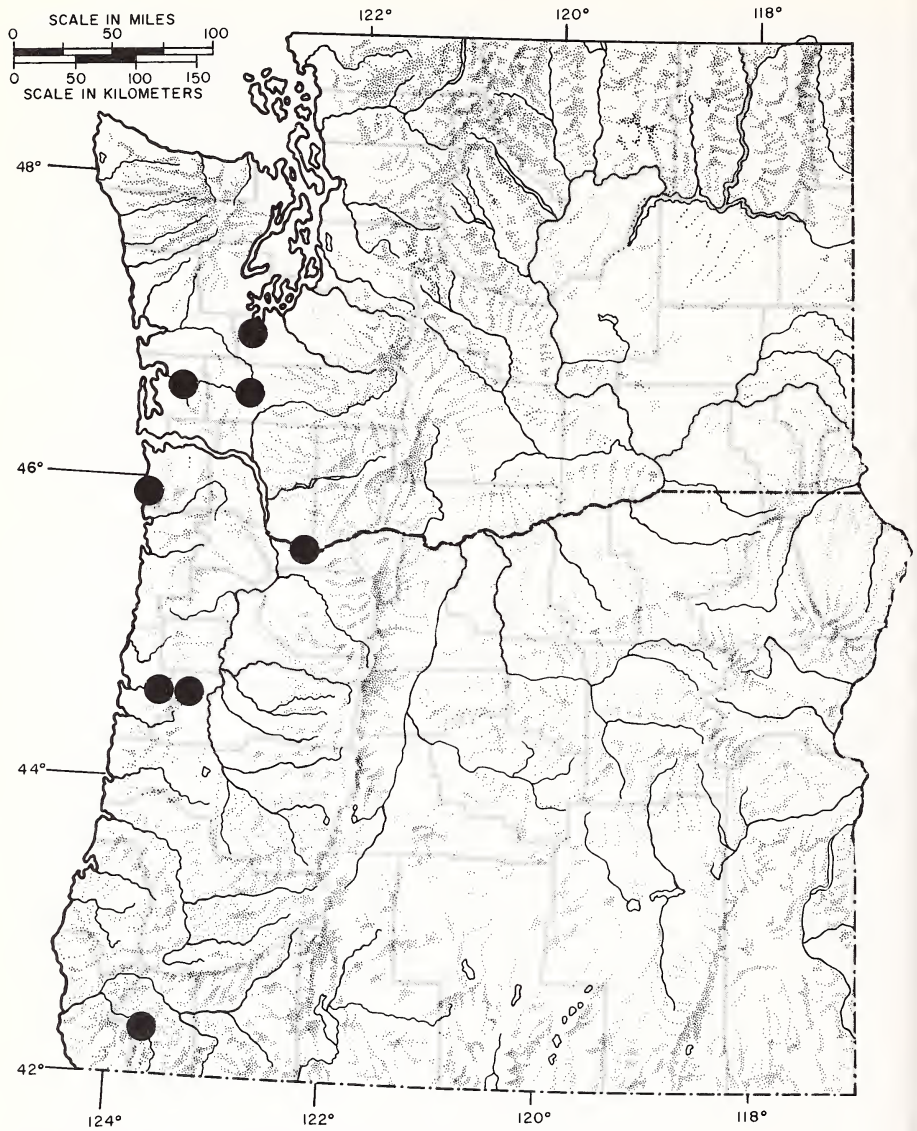


Fig. 18. Distribution of *Sigara krafti* Stonedahl, new species.

Distribution (Fig. 18). *Sigara krafti* is distributed west of the Cascade Range in Oregon and Washington. The majority of records are from streams and small rivers, but several specimens have been collected from small ponds (near rivers) in west-central Oregon. This species appears to be most abundant in shallow, static or slow-moving water over silty or muddy substrates. Three other species of *Sigara* are found

in similar habitats in western Oregon and Washington, and are sometimes collected with *S. krafti*. Of these, *S. washingtonensis* is encountered most often; the other species are *S. vandykei* and *S. omani*.

Holotype. Male: Oregon, Benton Co., Mary's R., 1 mi. W jct. St. Hwy, 34 on US 20, 2 Aug. 1983, G. M. Stonedahl (CAS).

Paratypes. OREGON. Benton Co.: 19 males and 19 females, same data as holotype (AMNH, CAS, JTP, OSU, USNM); 4 males, 4 mi. S Blodgett, 26 March 1959 (OSU); 1 male, Log pond, W end Philomath, 17 April 1962, B. Courtright (OSU); 1 male, Mary's R., 3 mi. W Philomath, 26 April 1956, J. D. Lattin (OSU). Clatsop Co.: 1 male, East Humbug Crk., 23 April 1966, S. G. Jewett, Jr. (OSU). Josephine Co.: 1 male and 8 females, 10 mi. W Selma, 13 May 1972, Wu Shuang Lee (OSU). Lincoln Co.: 1 female, Kasner Pond, 2 mi. E Burnt Woods, 22 April 1962, D. Hipply (OSU). Multnomah Co.: 1 male, Rooster Rock, Columbia R. Gorge, 15 April 1972 (OSU). WASHINGTON. Lewis Co.: 8 females, Chehalis R. at Alexander Park, 11 Sept. 1977, G. M. Stonedahl (author's collection); 1 male, T13N, R3W, Sec. 18, 12 Sept. 1977, G. M. Stonedahl (author's collection). Pacific Co.: 1 male, T14N, R8W, Sec. 19, 12 Sept. 1977, G. M. Stonedahl (author's collection); 2 males and 2 females, Willapa R., 9 Sept. 1930 (OSU); 19 males and 20 females, Willapa R., T13N, R8W, Sec. 25, 12 Sept. 1977, G. M. Stonedahl (author's collection). Thurston Co.: 1 female, Tumwater, 3 Sept. 1929 (OSU).

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